



Battery Shelf-Life What Is It?

**11th Annual Government
Industry Shelf Life Symposium
Baltimore, MD
24-26 August 2004**

Shelf-Life Program Objectives

- **Timely delivery of product to customer that meets user requirements**
 - **Lowest Cost**
 - **Highest Reliability**



Battery Shelf-Life Issues

- **Many different battery types, chemistries, and associated characteristics**
- **Variation in knowledge of battery characteristics within shelf-life community**
- **Differences in understanding or interpretation of shelf-life**



Definitions

Shelf-Life - Length of time a battery is required to last under storage conditions and remain capable of meeting mission requirements

Service-Life - Useful life of a battery for mission application from the time it is placed in service

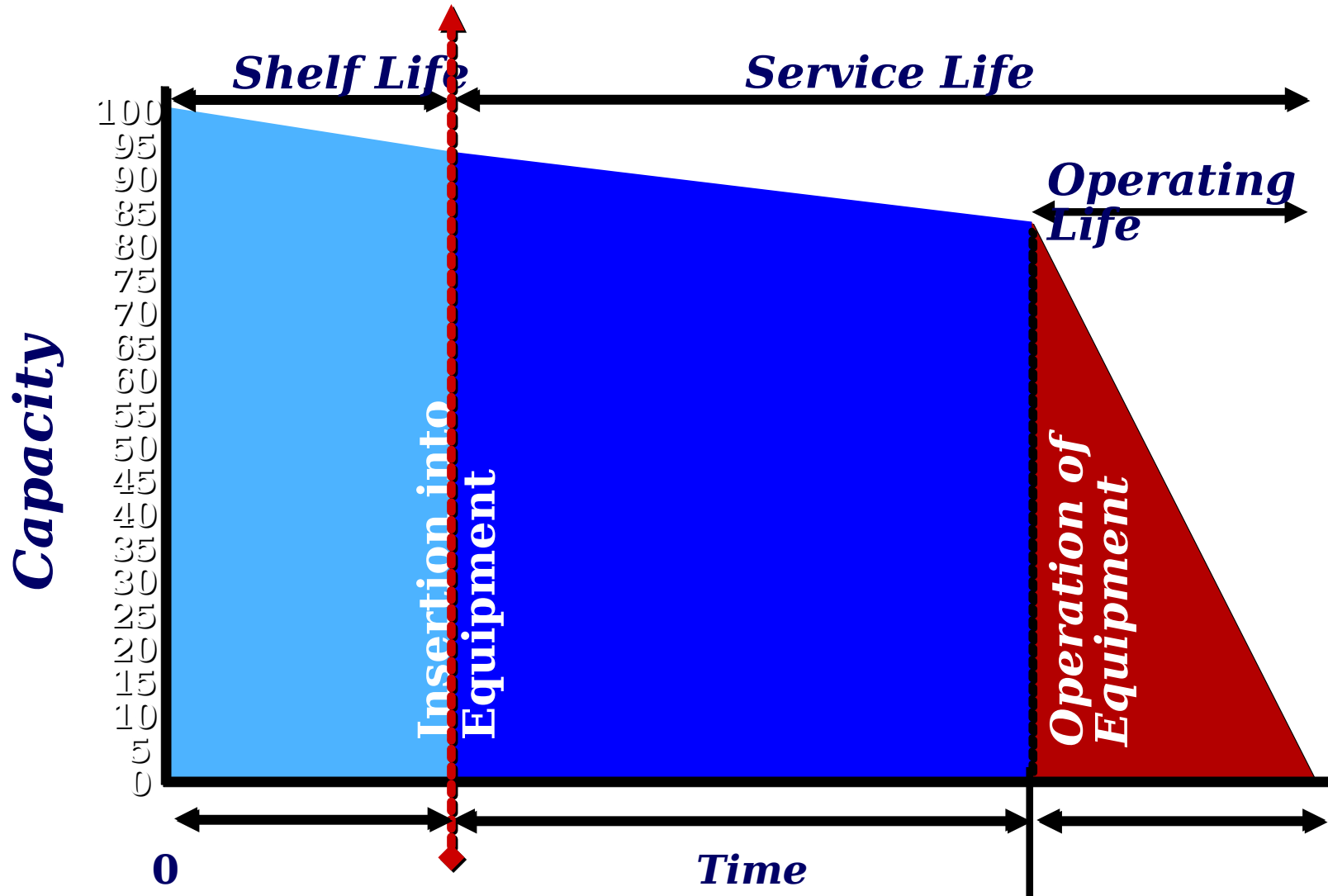
Capacity - Ability of a battery to provide a sustained current for a given duration of time (Ah) until voltage reaches specified lower limit (cutoff voltage)

Operating Life - Time required for battery voltage to remain above cutoff voltage under mission loading

Self Discharge - Process in which battery discharges (loses capacity) due to internal chemical reactions without an external load applied



Battery Life



Bottom Line

If items are stored (regardless of whether by acquisition activity or end user), the condition of the inventory must be understood



Battery Shelf-Life Sub-Committee

Goals

- * Evaluate and enhance the life cycle process for batteries as it relates to shelf-life**
- * Recommend actions to resolve issues and problem identified by DoD customers**
- * Recommend procedural and process changes to enhance program management**
- * Recommend policy changes to DoD 4140.27 and other policy documents**



Battery Shelf-Life

Sub-Committee

Focus Areas

- * **Acquisition issues affecting shelf-life & quality**
- * **Validate and standardize shelf-life coding in DoD**
- * **Establish standards and procedures for disposal and returns**
- * **Update and coordinate battery storage standards, including training at all levels**
- * **Procedure for military unique shelf-life problems**
- * **Battery reference material readily available to all users**



Battery Shelf-Life Sub-Committee

Focus Areas

- * **Standardization of batteries**
- * **Establish and standardize testing and identify technical centers**
- * **Standardize marking and packaging and with commercial practice where possible**
- * **Standardize buying efforts between agencies**
- * **Establish yearly joint services battery conference**

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